



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,499	03/29/2004	Michel Abi-Karam	103120-00058	8904
4372	7590	11/23/2005	EXAMINER	
ARENT FOX PLLC 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			TOLAN, EDWARD THOMAS	
			ART UNIT	PAPER NUMBER
			3725	

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

T. Tolan

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/811,499	ABI-KARAM, MICHEL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Edward Tolan	3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3-29-2004</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations "the final thickness" in line 1, "the outlet" in line 1, "the global reduction in thickness" in line 3, "the plant" in line 7, "the rotational speed" in line 9, "the gradual variation in thickness" in line 10 and "the reduction in thickness" in line 11. There is insufficient antecedent basis for these limitations in the claim.

Claim 2 recites the limitations "the distribution of the reduction in thickness" in line 3, "the gradation of the speeds" in line 4 and "the load to be applied" in line 5. There is insufficient antecedent basis for these limitations in the claim.

Claim 3 recites the limitations "the global reduction in thickness" in line 1, "the inlet and the outlet of the plant" in line 2, "the load imposed" in line 6 and "the most loaded stand" in line 9. There is insufficient antecedent basis for these limitations in the claim.

Claim 9 recites the limitation "the load detected" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitations "the final thickness" in line 1, "the reduction in thickness" in line 3, "the plant" in line 7, "the rotational speed" in line 8, "the gradual

Art Unit: 3725

variation in thickness” in line 9 and “the reduction in thickness” in line 10. There is insufficient antecedent basis for these limitations in the claim.

### ***Drawings***

The drawings are objected to because Figure 3 contains French language in the graph. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3725

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwedt (6,205,829) in view of Kotera (4,616,494). Schwedt discloses a control system (2,3) for measuring torque at each rolling stand (1) in a rolling mill. The motors of each rolling stand are controlled in order to regulate tension between the stands. A speed control unit (column 6, lines 5-34) is used to control a speed of all upstream stands based upon any variation in speed that occurs at a last stand in the rolling mill. When thickness, temperature or hardness deviations that affect tension arise, torque variations ( $\Delta C$ ) are calculated and the control system adjusts the speeds of the mill in order to eliminate inter-stand tension variations. Schwedt does not disclose that a dynamic load balance is used on the stands in order to preserve a final thickness. Kotera teaches it is known that rolling loads on rolling stands (#4-#6) are changed while preserving an exit side plate thickness (h6). Rolling load amount is defined by required rolling torque or required electric power. Rolling load detectors (4-6) send load amounts to a control (10) and position control devices (7-9) are used to balance loads for each of the rolling stands during a plate thickness change. It would have been obvious to one skilled in the art at the time of invention to provide Schwedt with rolling stand load balancing as taught by Kotera in order to quickly respond to changes in rolling thickness.

Art Unit: 3725

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication should be directed to Ed Tolan whose telephone number is 571-272-4525.

ED TOLAN  
PRIMARY EXAMINER  
